

ABSTRACT OF THE DISCLOSURE

In reproduction from a magneto-optical recording medium by the domain wall displacement detection method, it is possible to avoid occurrence of ghost signals and to improve dropout, and moreover design of magnetic layers is made easy. A configuration is adopted having at least, in order from the side of incidence of laser light for reproduction, a first magnetic layer 11 constituting a reproduction layer, a second magnetic layer 12 constituting a control layer, a third magnetic layer 13 constituting a blocking layer, and a fourth magnetic layer 14 constituting a recording layer, which if the respective Curie temperatures thereof are T_{c1} , T_{c2} , T_{c3} and T_{c4} , satisfy the relations $T_{c1} > T_{c3} > T_{c2}$ and $T_{c4} > T_{c3}$. At the same time, if the magnetic anisotropy of the second magnetic layer is K_{u2} and the magnetic anisotropy of the third magnetic layer is K_{u3} , the relation $K_{u3} > K_{u2}$ is satisfied. A configuration is adopted in which a magnetic domain wall in the first magnetic layer 11 in front of the spot irradiated by the reproduction light on the optical recording medium in the direction of travel is displaced toward the peak temperature portion occurring in the proximity of the center of the reproduction light spot due to irradiation by reproduction light, so that a recorded domain is expanded, and in addition displacement in the spot direction of a

domain wall in the first magnetic layer 11 behind the reproduction light spot in the direction of travel is suppressed; moreover, the second magnetic layer 12 and the third magnetic layer 13 control the magnetic exchange coupling between the first magnetic layer 11 and the fourth magnetic layer 14.